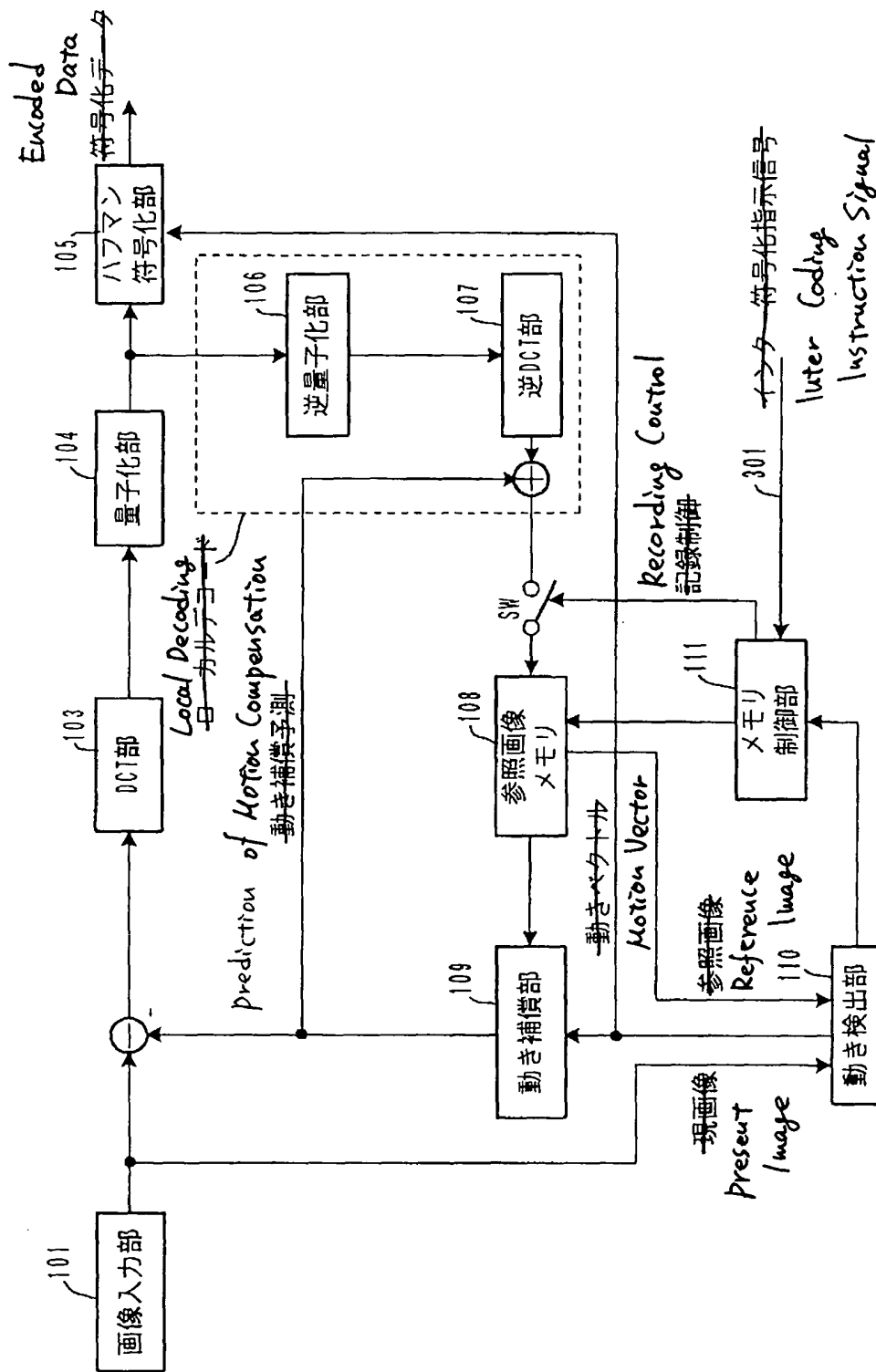




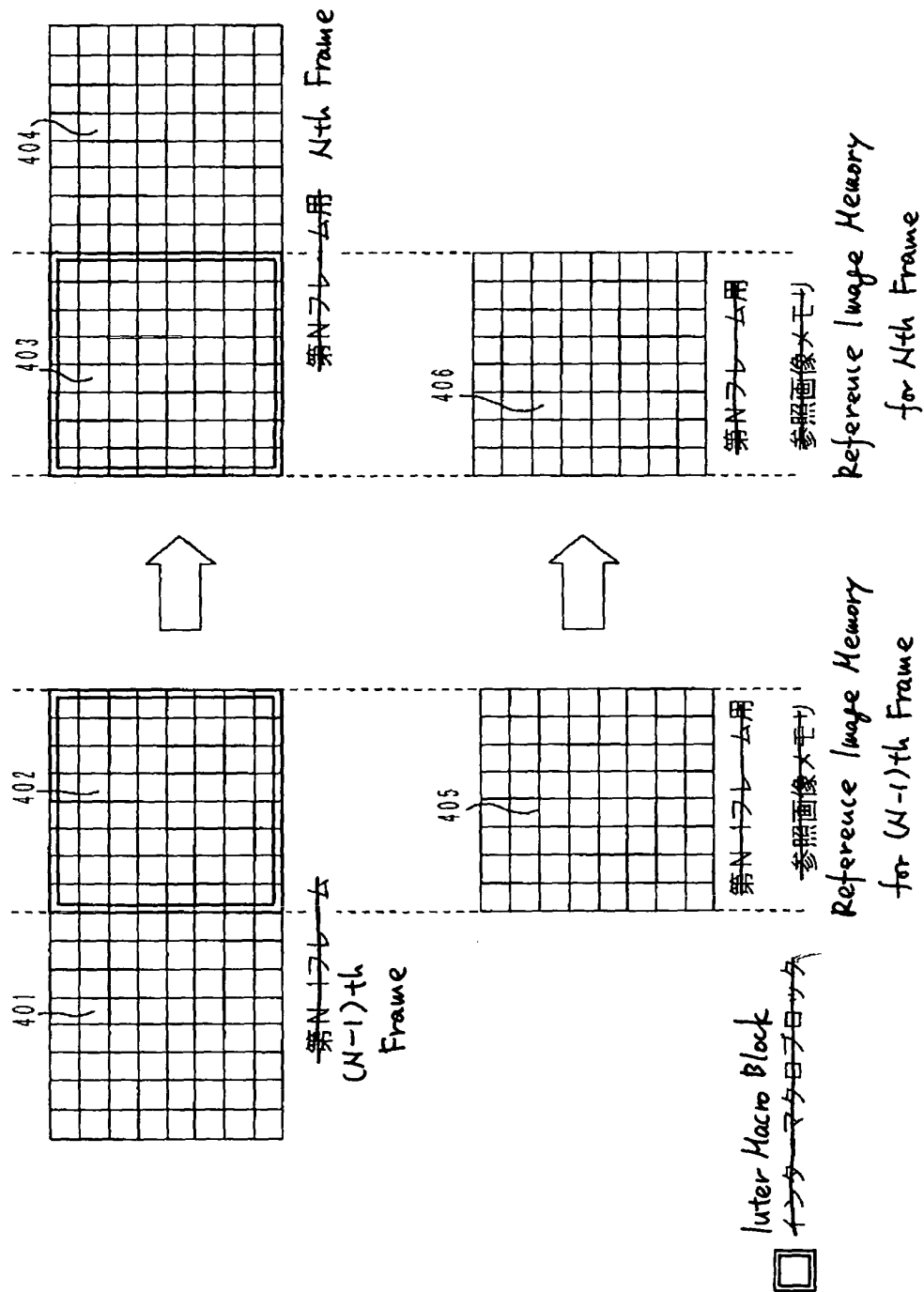


図3 Fig. 3

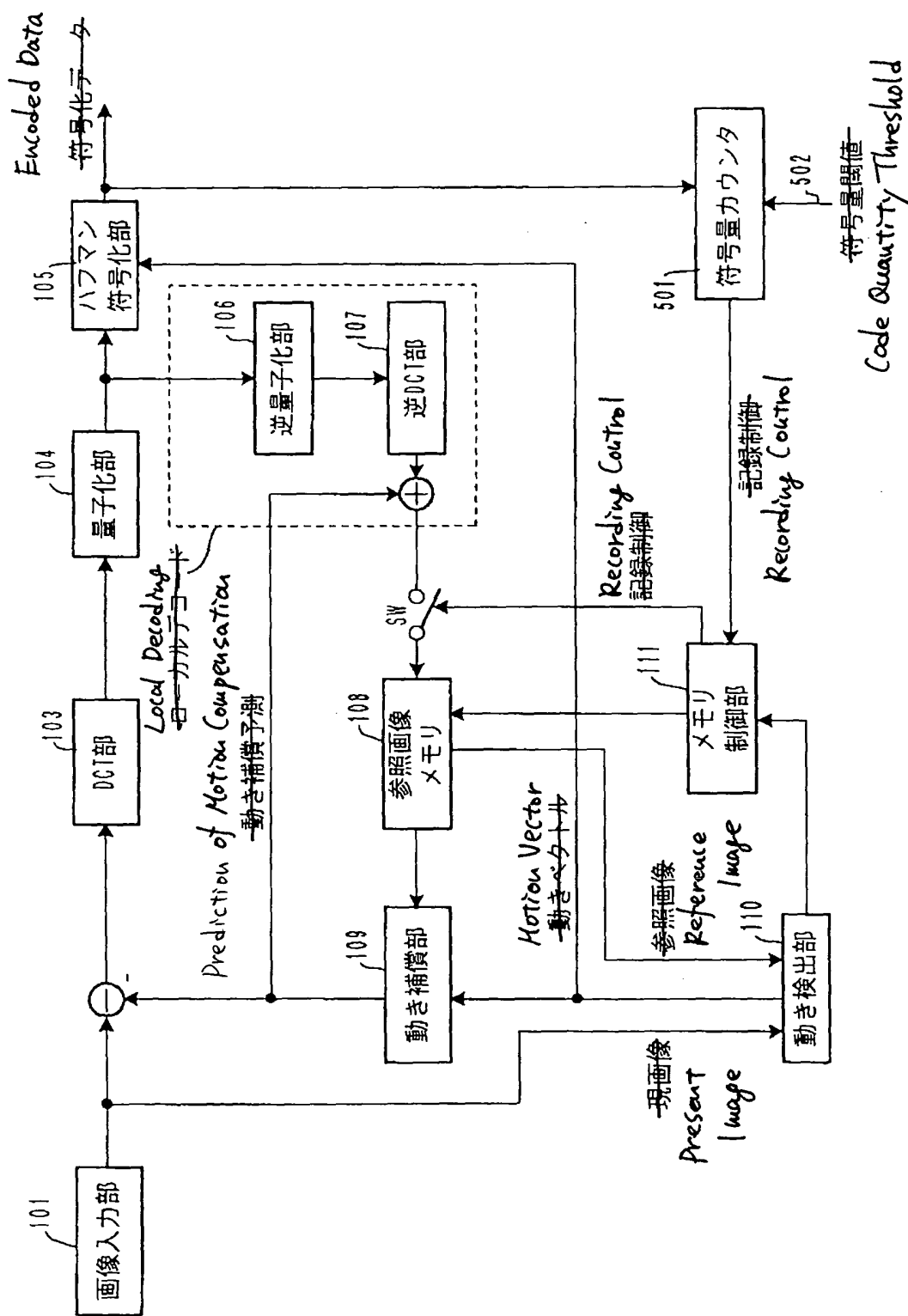


- |     |                  |     |                        |
|-----|------------------|-----|------------------------|
| 101 | Image Input Unit | 107 | Reverse DCT Unit       |
| 103 | DCT Unit         | 108 | Reference Image Memory |
| 104 | Quantizer        | 109 | Motion Compensator     |
| 105 | Huffman Encoder  | 110 | Motion Detector        |
| 106 | Dequantizer      | 111 | Memory Controller      |

〔図4〕 Fig. 4



〔図5〕 Fig.5



- |     |                  |     |                        |
|-----|------------------|-----|------------------------|
| 101 | Image Input Unit | 108 | Reference Image Memory |
| 103 | DCT Unit         | 109 | Motion Compensator     |
| 104 | Quantizer        | 110 | Motion Detector        |
| 105 | Huffman Encoder  | 111 | Memory Controller      |
| 106 | Dequantizer      | 501 | Code Quantity Counter  |
| 107 | Reverse DCT Unit |     |                        |

~~Fig. 6~~ Fig. 6

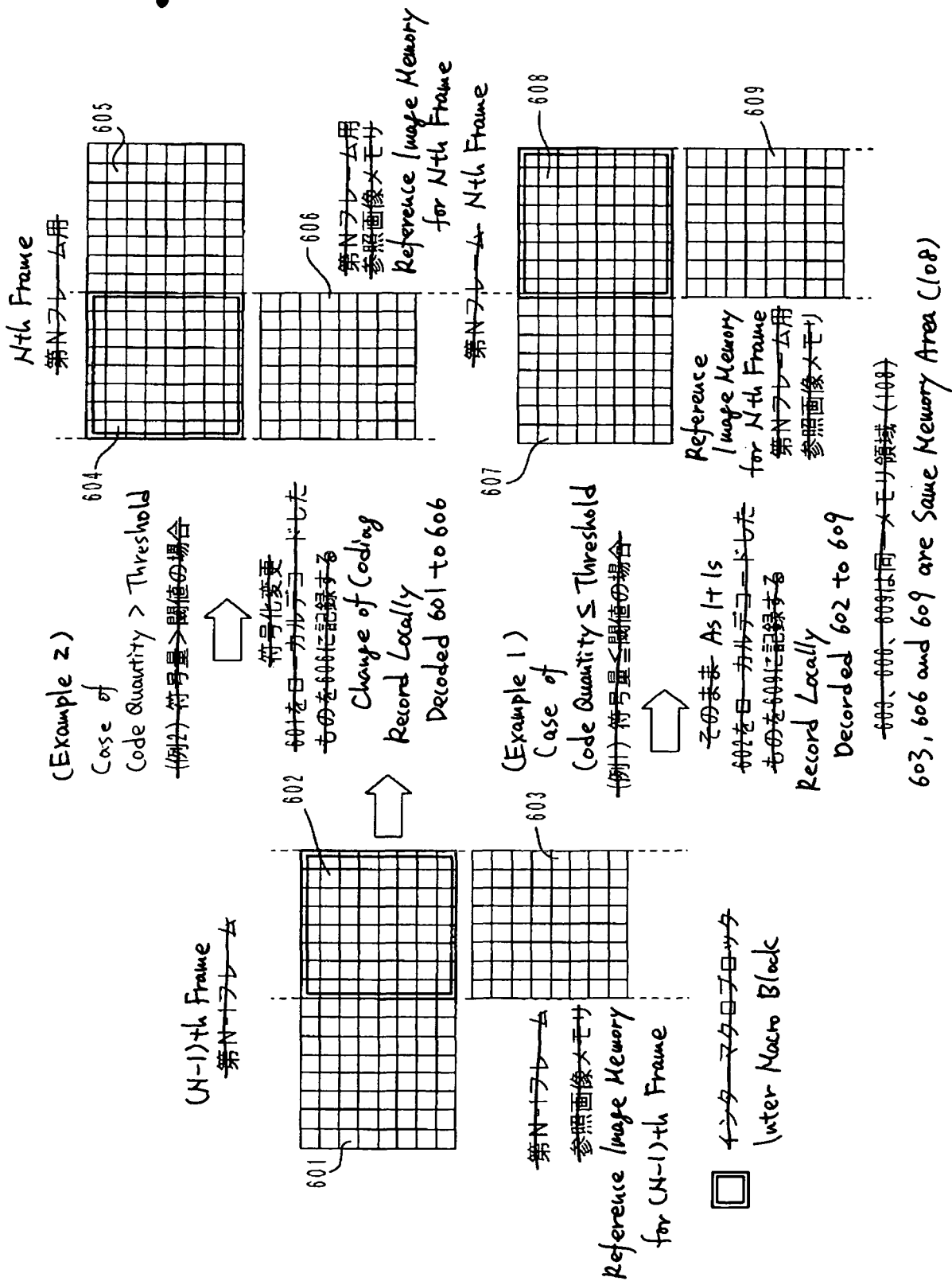
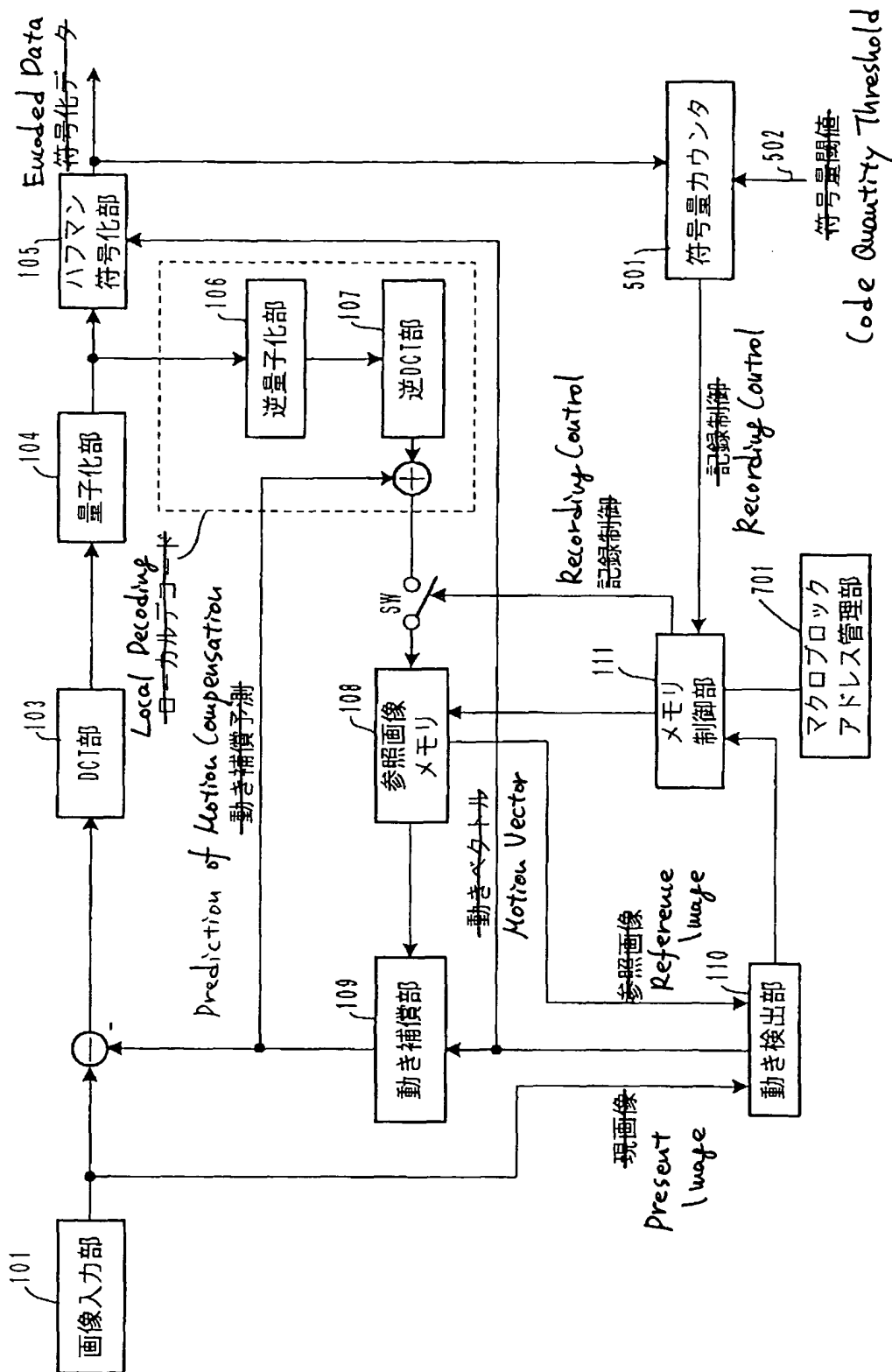


図7 Fig. 7



101	Image Input Unit	108	Reference Image Memory
103	DCT Unit	109	Motion Compensator
104	Quantizer	110	Motion Detector
105	Huffman Encoder	111	Memory Controller
106	Dequantizer	501	Code Quantity Counter
107	Reverse DCT Unit	701	Macro Block Address Manager

Fig. 8

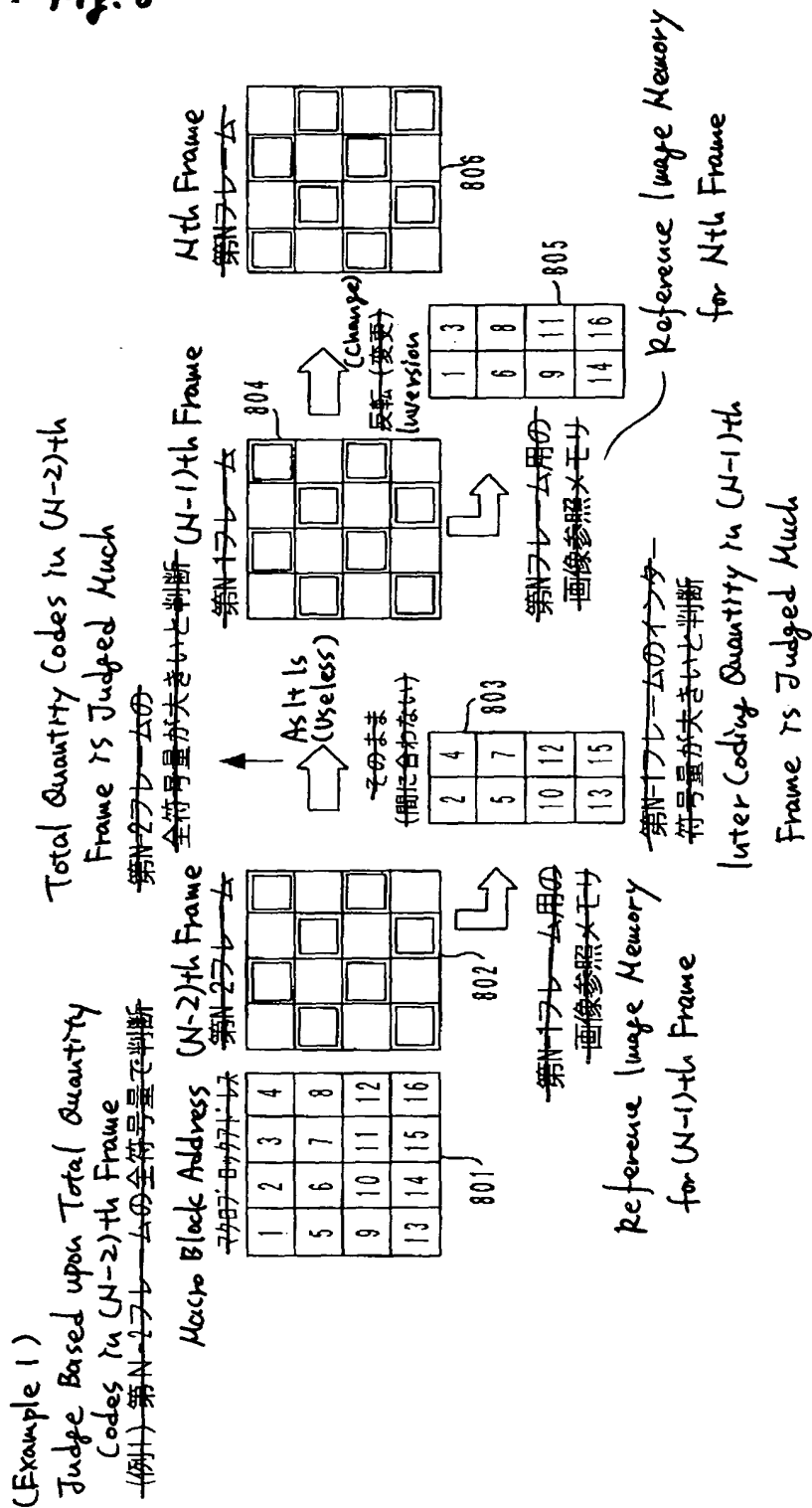
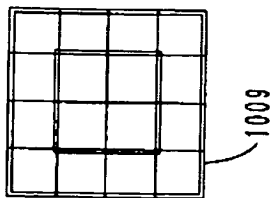


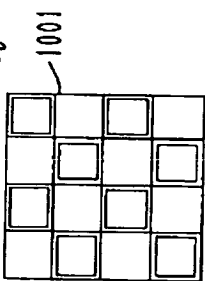


Fig. 1

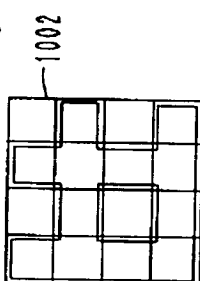
Center High  
Image Quality Type  
(5) 中央高画質型



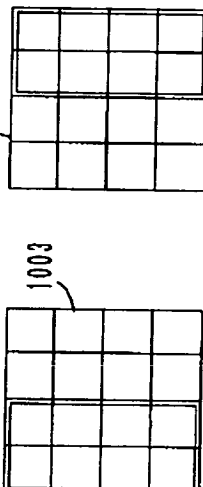
(1) 千鳥型 Staggered Type



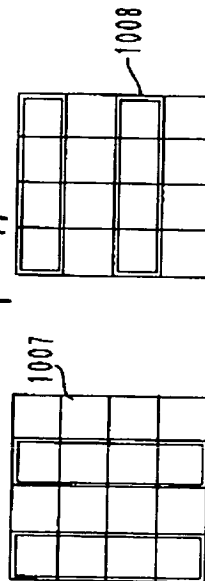
(2) 格子型 Lattice Type



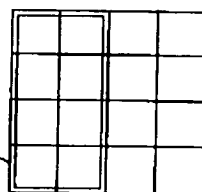
(3) 分割型 Division Type



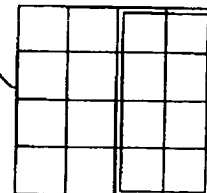
(4) ストライプ型 Stripe Type



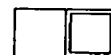
1005



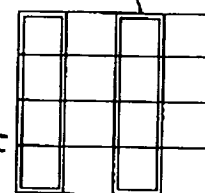
1006



Intra Macro Block  
Inter Macro Block



1008



1007

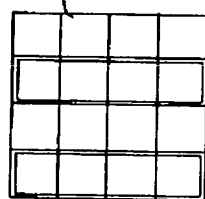
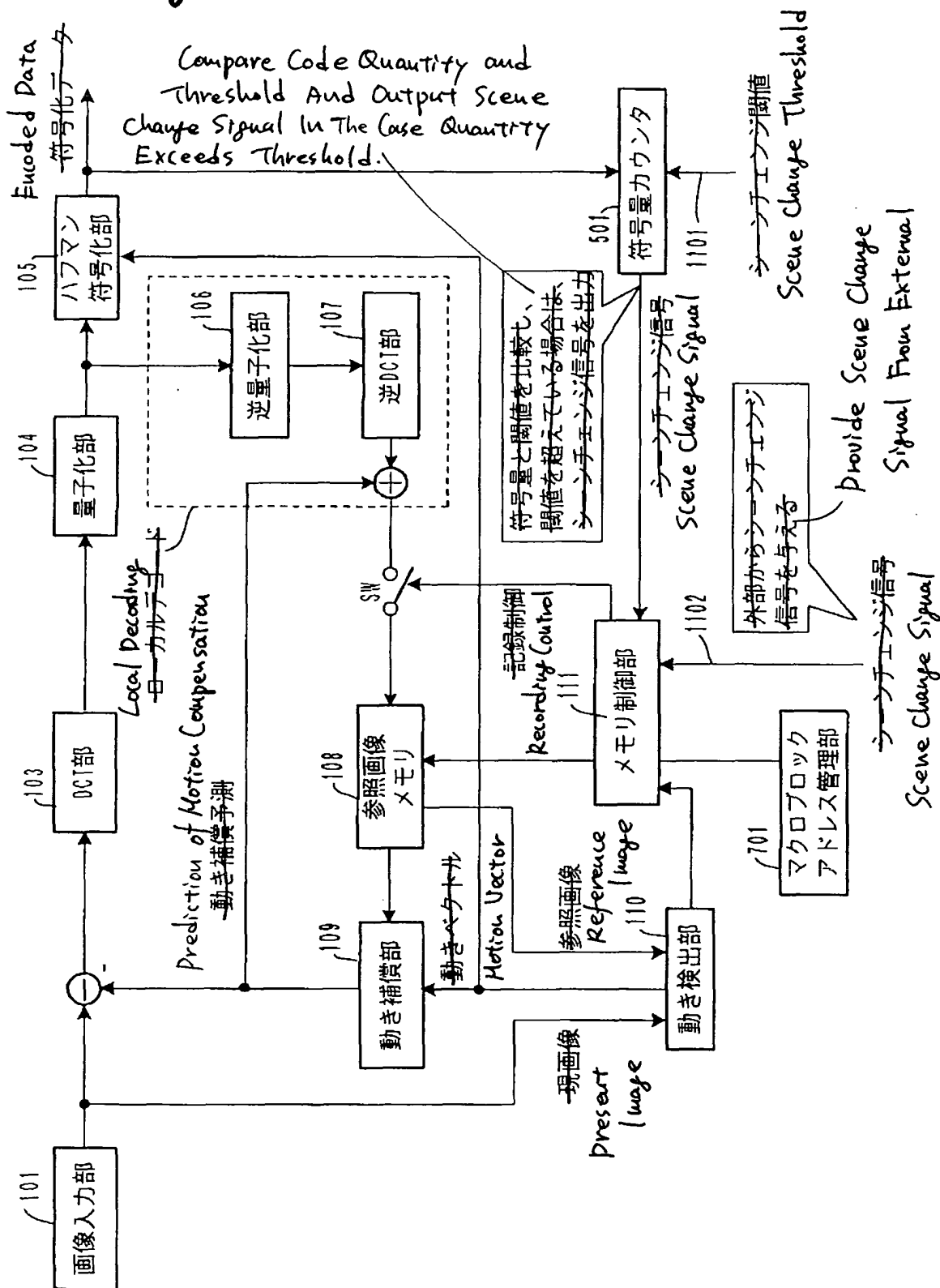
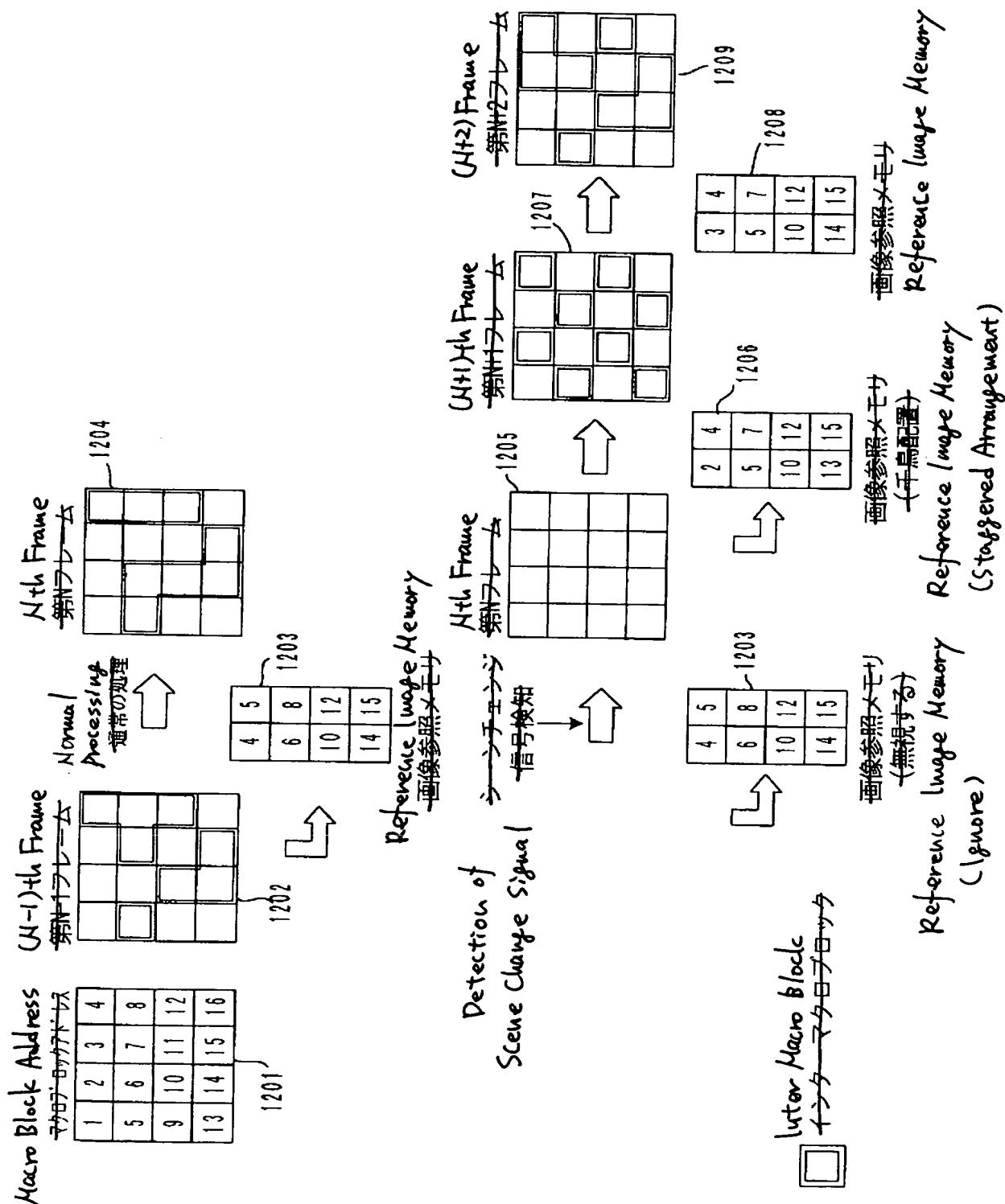


Fig. 11



- |     |                  |     |                             |
|-----|------------------|-----|-----------------------------|
| 101 | Image Input Unit | 108 | Reference Image Memory      |
| 103 | DCT Unit         | 109 | Motion Compensator          |
| 104 | Quantizer        | 110 | Motion Detector             |
| 105 | Huffman Encoder  | 111 | Memory Controller           |
| 106 | Dequantizer      | 501 | Code Quantity Counter       |
| 107 | Reverse DCT Unit | 701 | Macro Block Address Manager |

Fig. 12



101	Image Input Unit	111	Memory Controller
103	DCT Unit	501	Code Quantity Counter
104	Quantizer	701	Macro Block Address Manager
105	Huffman Encoder	1301	Inter Macro Block Number Counter
106	Dequantizer	1302	Difference Comparator
107	Reverse DCT Unit	1305	Continuous Inter Coding Frequency Counter
108	Reference Image Memory		

Fig. 14

(Example 1) Differential Threshold = 50

(例) 差分閾値 = 50

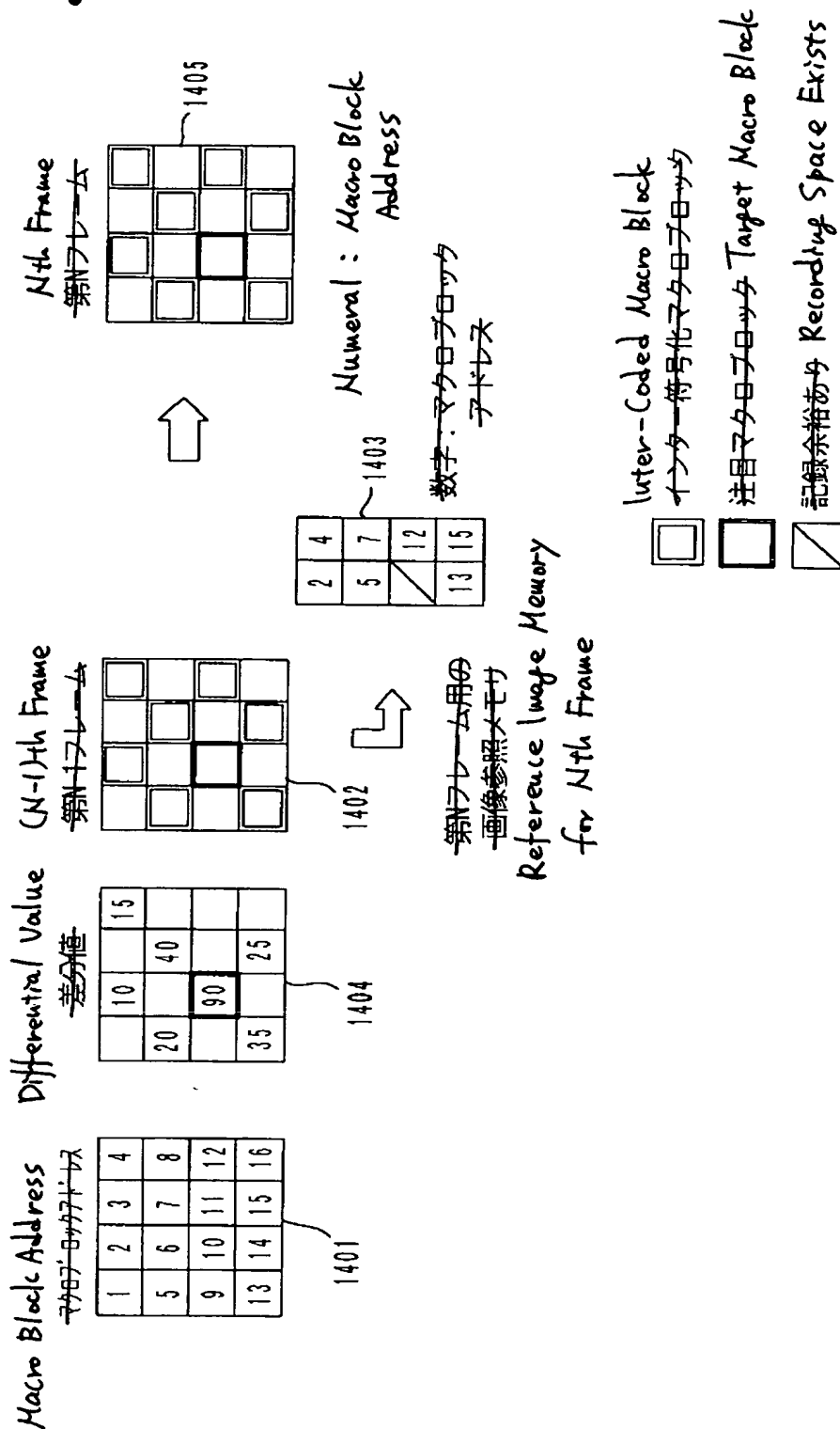


Fig. 15

(Example 2) Differential Threshold = 50

(例) 差分閾値 = 50

Macro Block Address (N-1)th Frame

差分値

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

1401

10	15
20	40
15	35
35	49

1502

第Nフレーム用の  
画像参照メモリ

Reference Image Memory  
for Nth Frame



Nth Frame


1505

Numeral: Macro Block  
Address

数字: マクロブロック  
アドレス

2	4
5	7
12	13
15	15

- Inter-Coded Macro Block  
インターコード化マクロブロック
- 注目マクロブロック Target Macro Block
- 記録余裕あり Recording Space Exists



Proof - 2003/03/04

図17 Fig. 17

(Example 4) Differential Threshold 3 = 15

(例4) 差分閾値 3 = 15

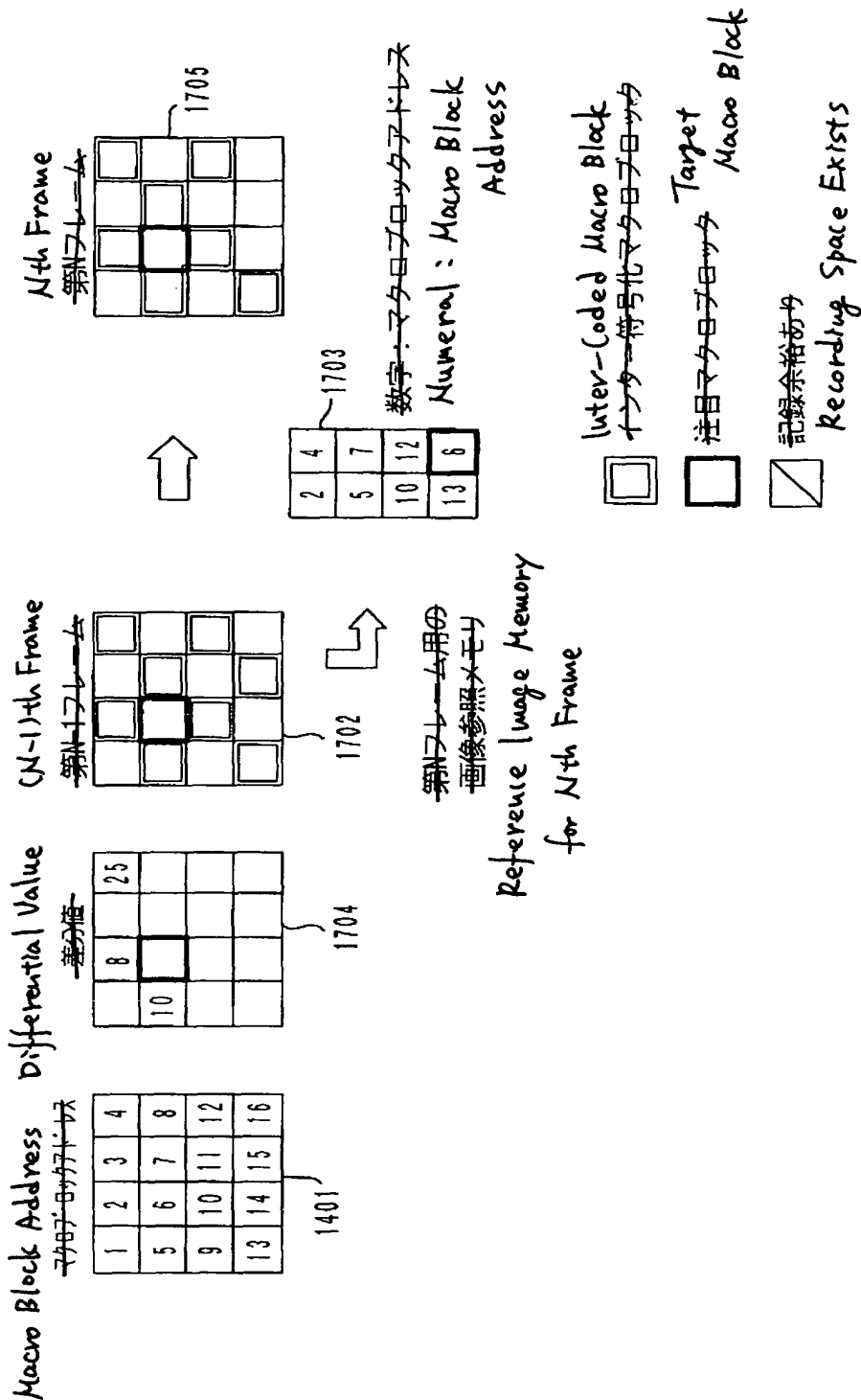


Fig. 18

(Example 5) Code Quantity Threshold = 50

符号量の閾値 = 50

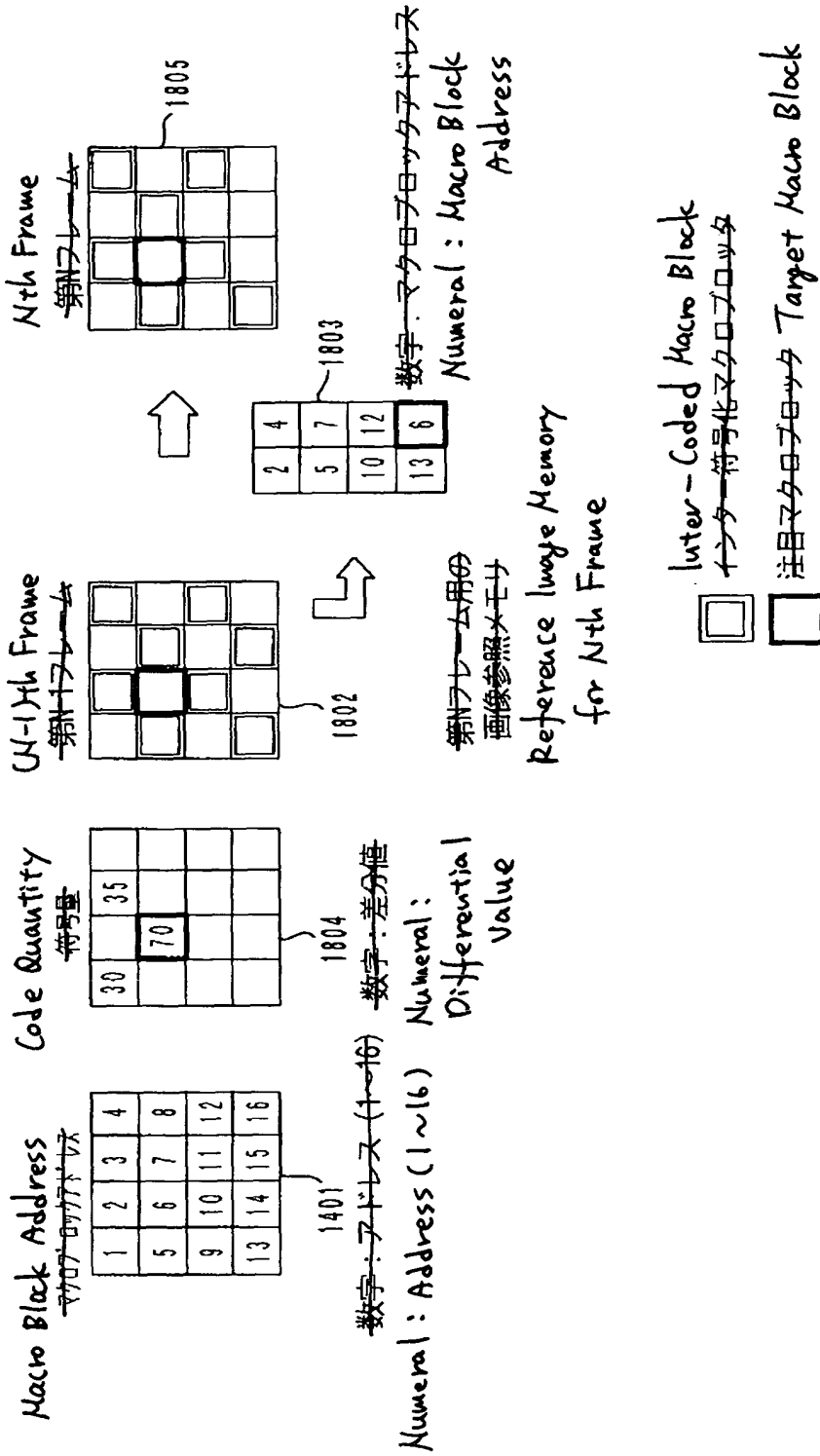
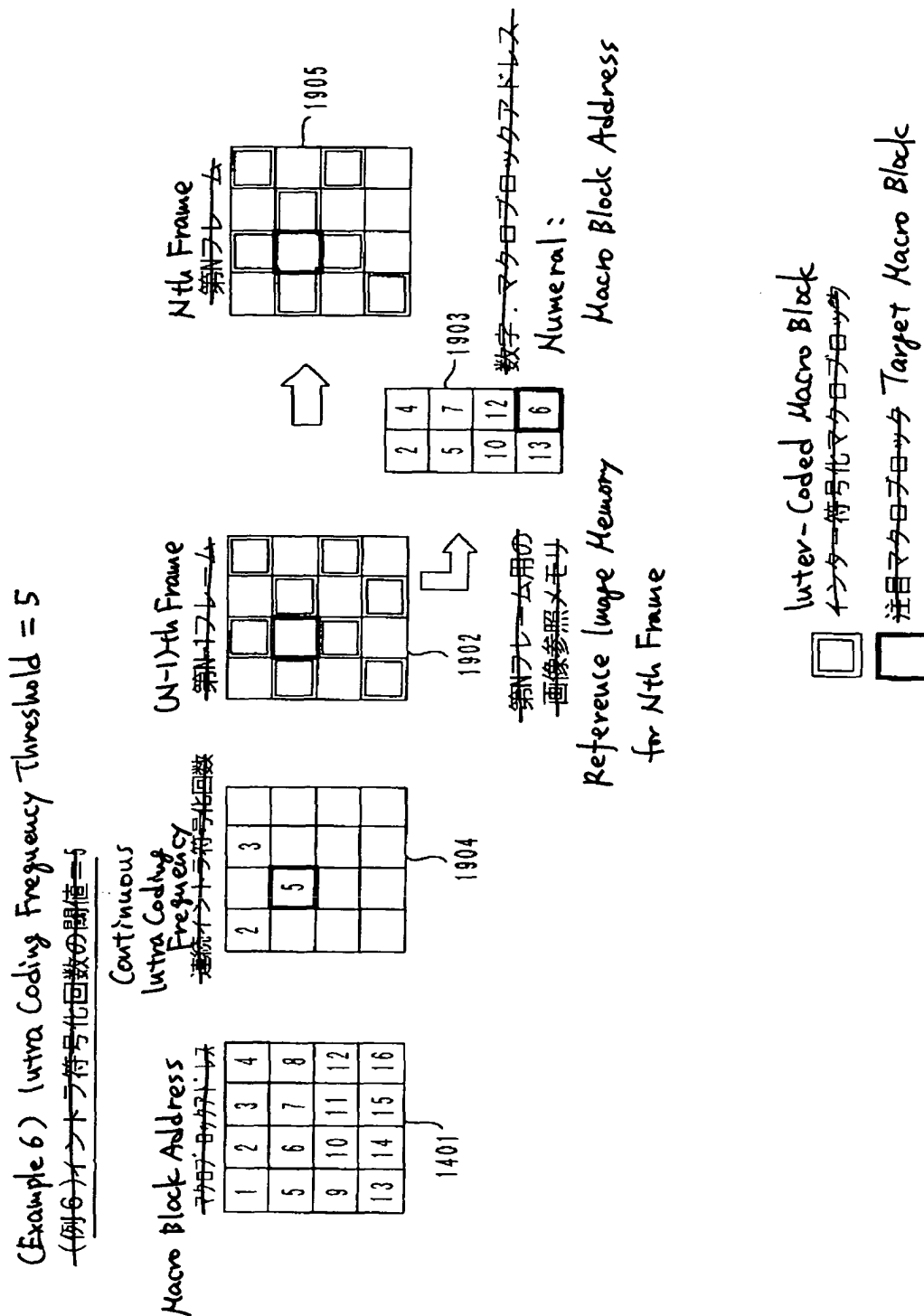
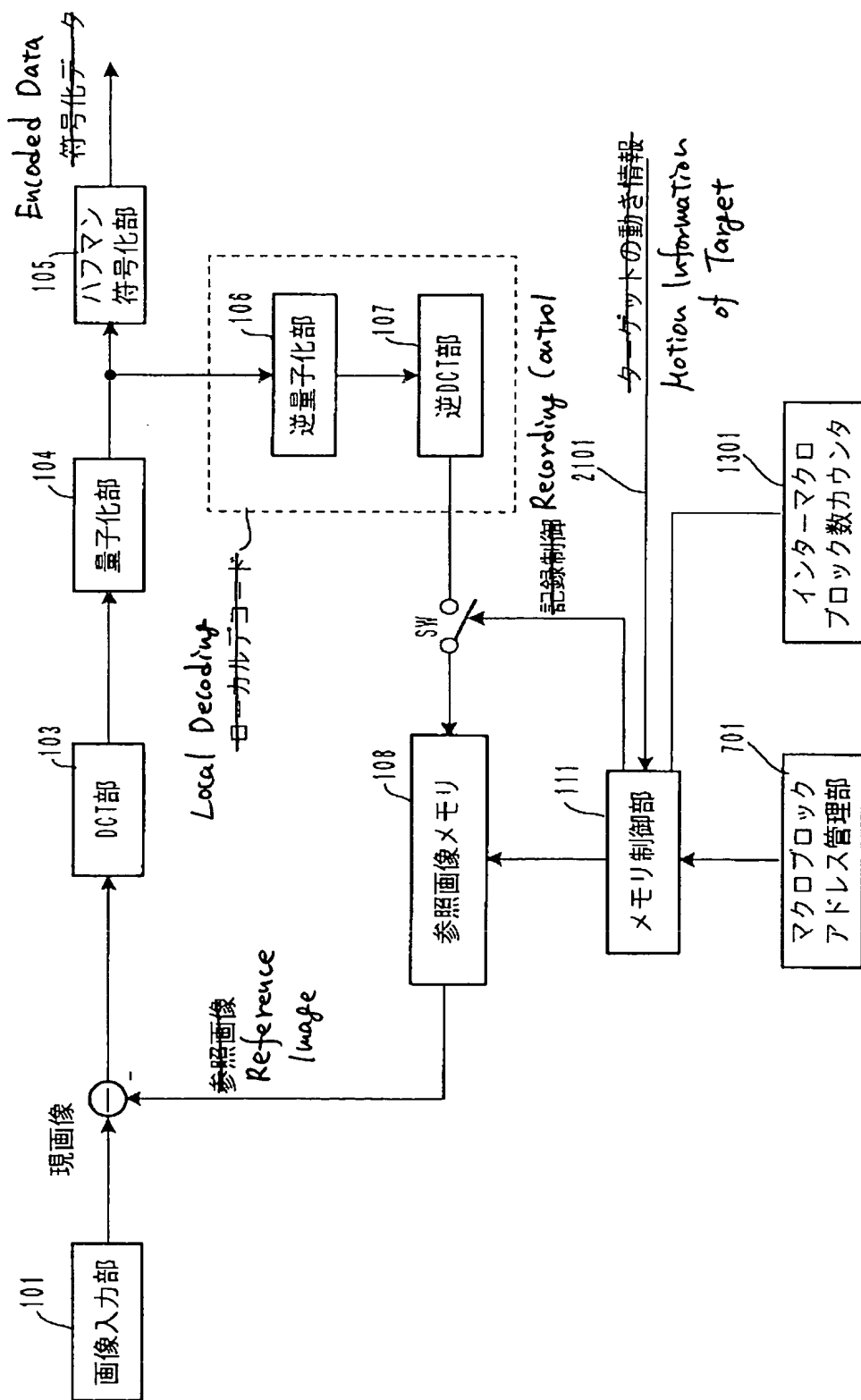


Fig. 19



~~図 20~~ Fig. 20



- |     |                  |      |                                  |
|-----|------------------|------|----------------------------------|
| 101 | Image Input Unit | 108  | Reference Image Memory           |
| 103 | DCT Unit         | 111  | Memory Controller                |
| 104 | Quantizer        | 701  | Macro Block Address Manager      |
| 105 | Huffman Encoder  | 1301 | Inter Macro Block Number Counter |
| 106 | Dequantizer      |      |                                  |
| 107 | Reverse DCT Unit |      |                                  |

Fig. 21

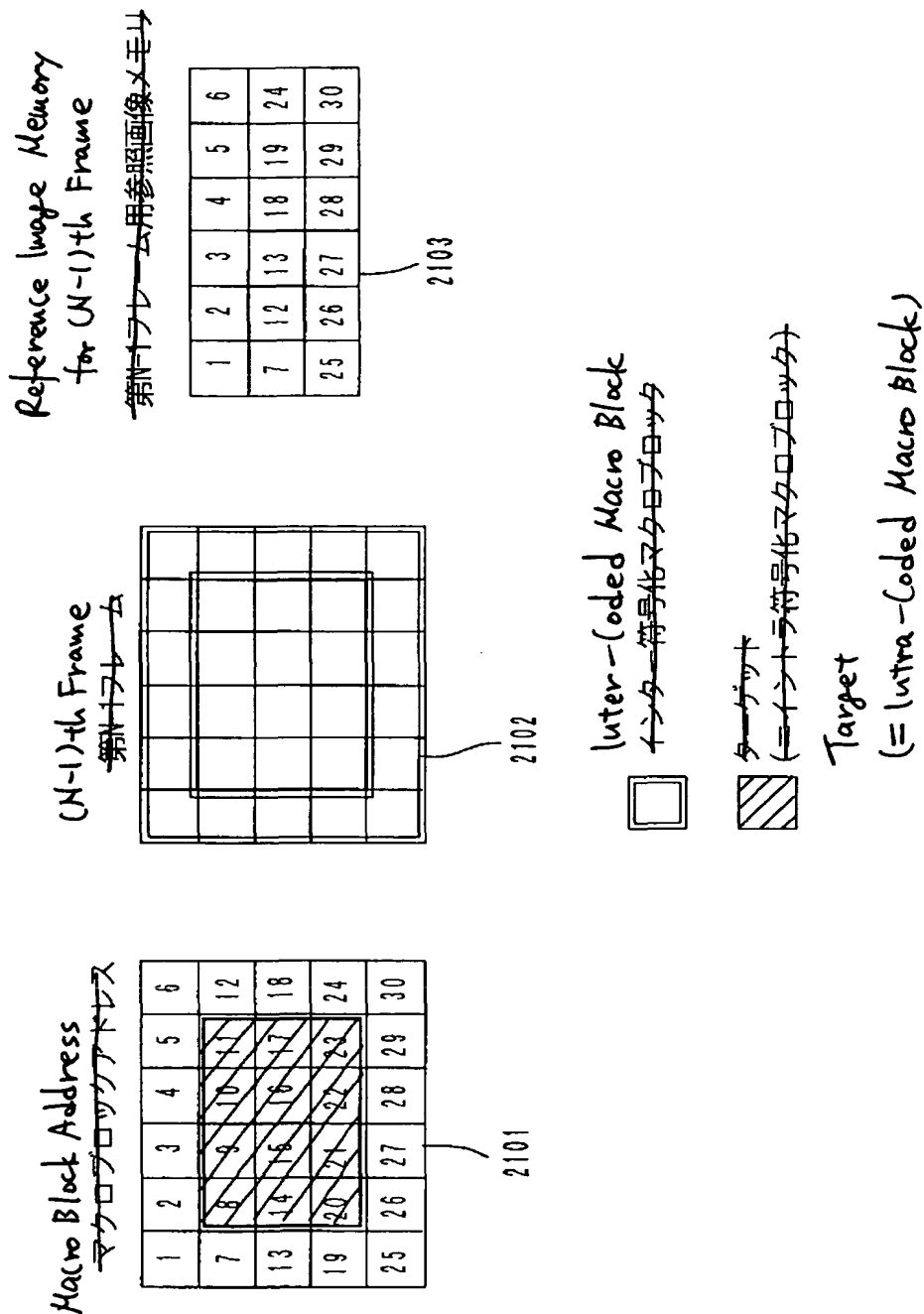


Fig. 22

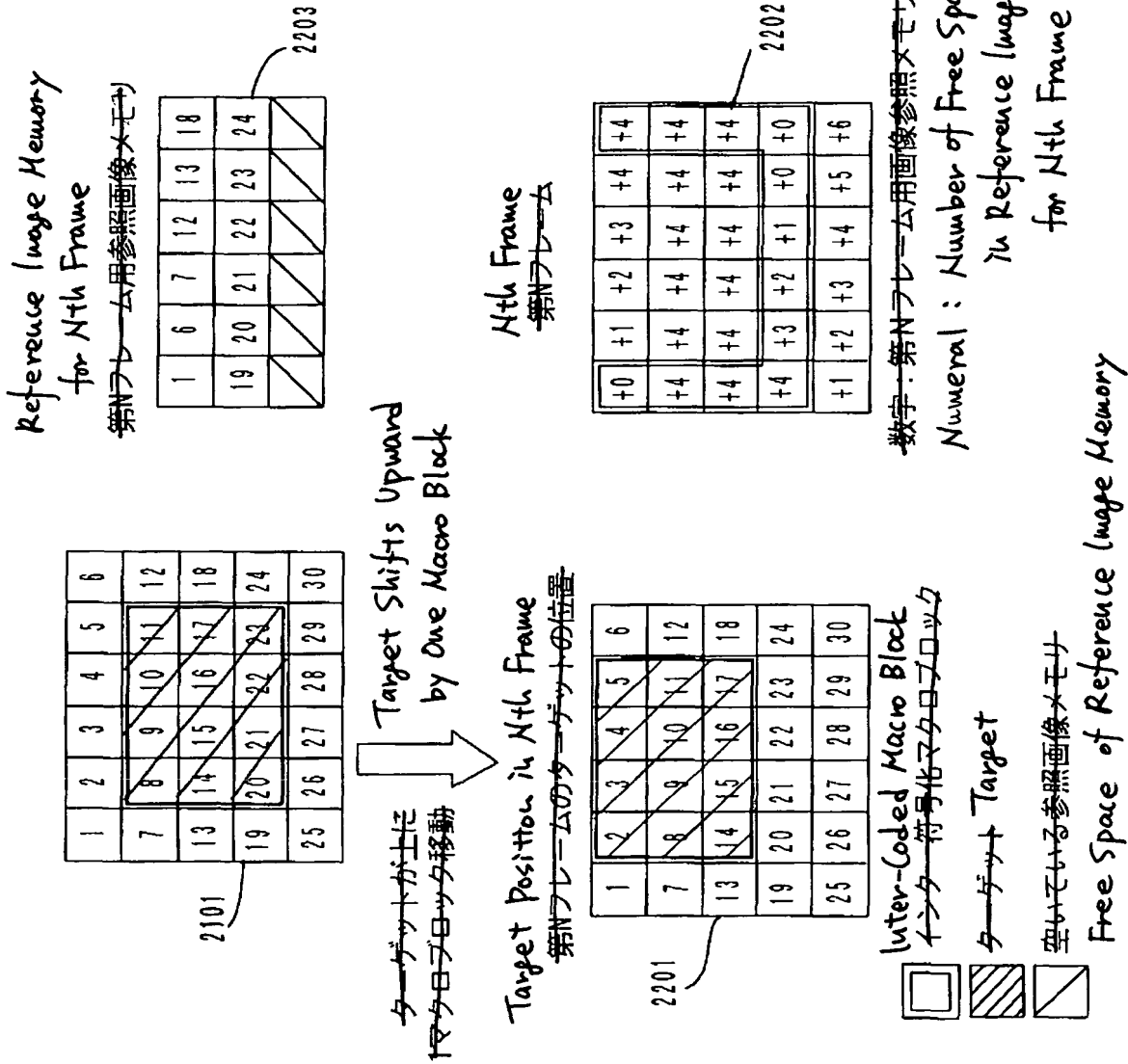


Fig. 23

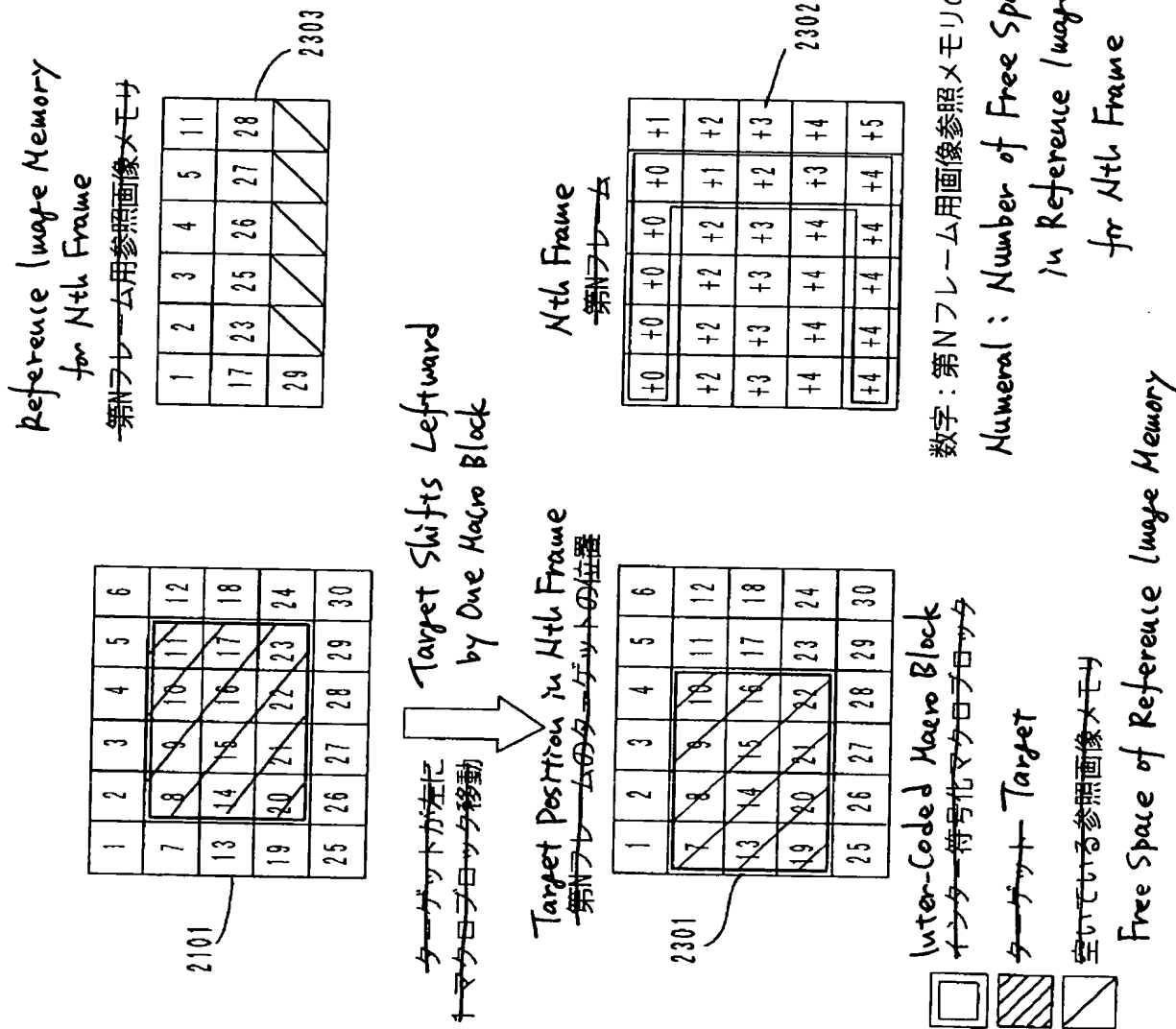


Fig. 24

Reference Image Memory  
for Nth Frame

第Nフレーム用参照画像メモリ

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2101

ターゲットブロックに  
マクロブロック移動  
Target Shifts Downward  
by One Macro Block

Target Position in Nth Frame  
第Nフレームのターゲットの位置

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2401

Inter-Coded Macro Block  
インター符号化マクロブロック

ターゲット Target

空白である参照画像メモリ

Free Space of Reference Image Memory

Nth Frame  
第Nフレーム

+1	+2	+3	+4	+5	+6
+6	+5	+4	+3	+2	+2
+2	+2	+2	+2	+2	+2
+2	+2	+2	+2	+2	+2
+2	+3	+4	+5	+6	+6

2402

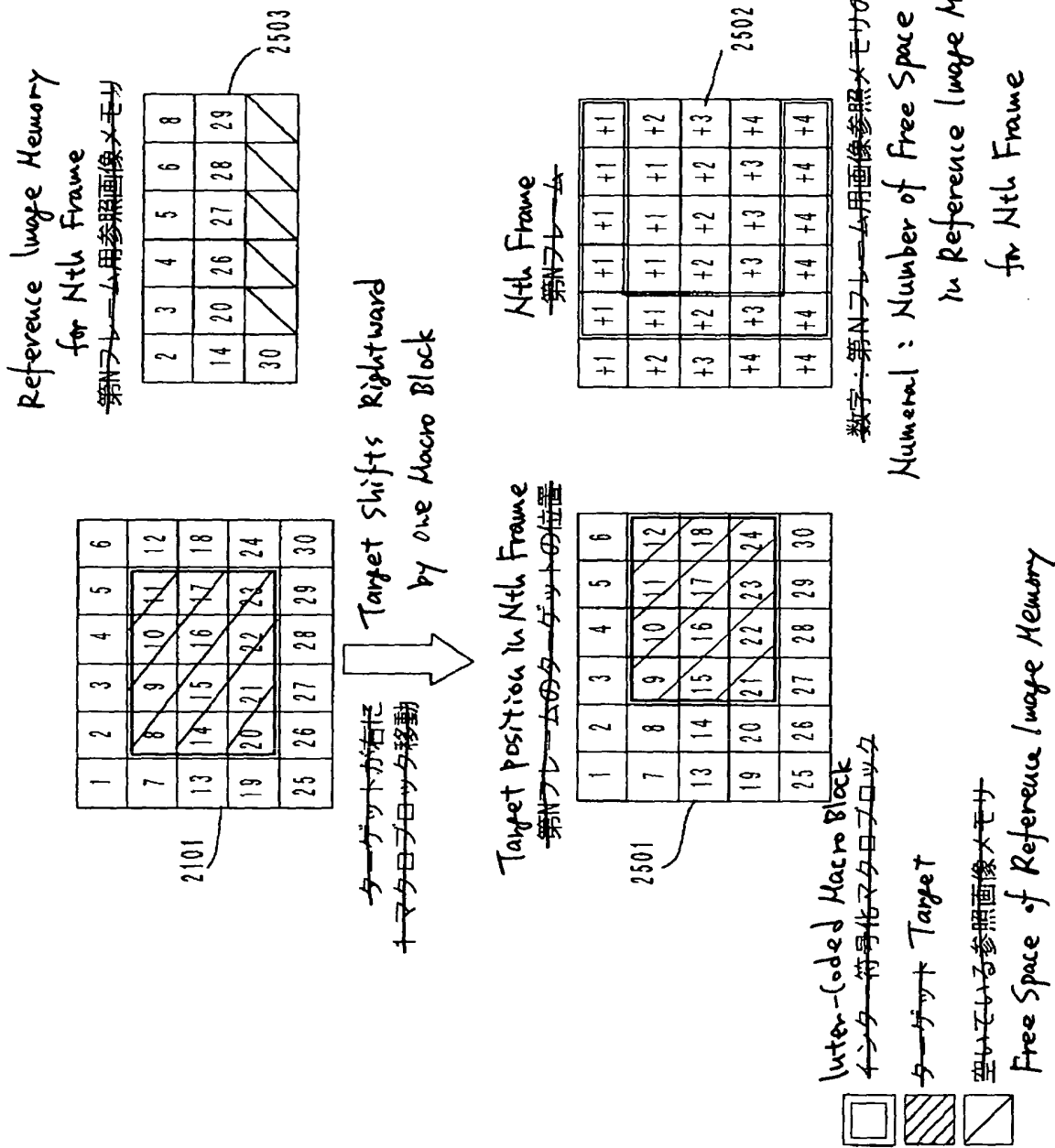
数字: 第Nフレーム用画像参照メモリの記録余裕数

Numerical: Number of Free Space

in Reference Image Memory

for Nth Frame

Fig. 25





〔図27〕 Fig. 27

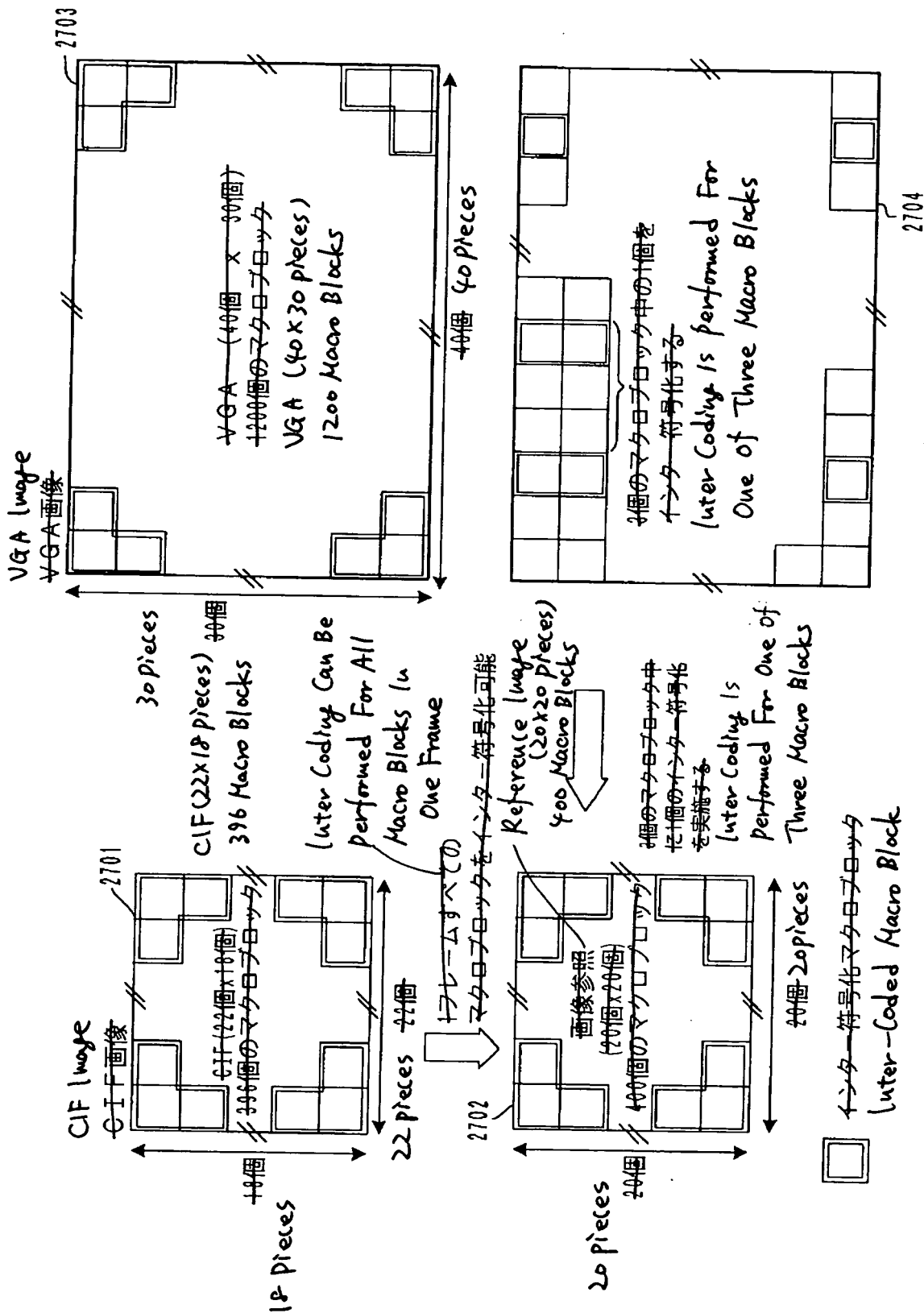


Fig. 28

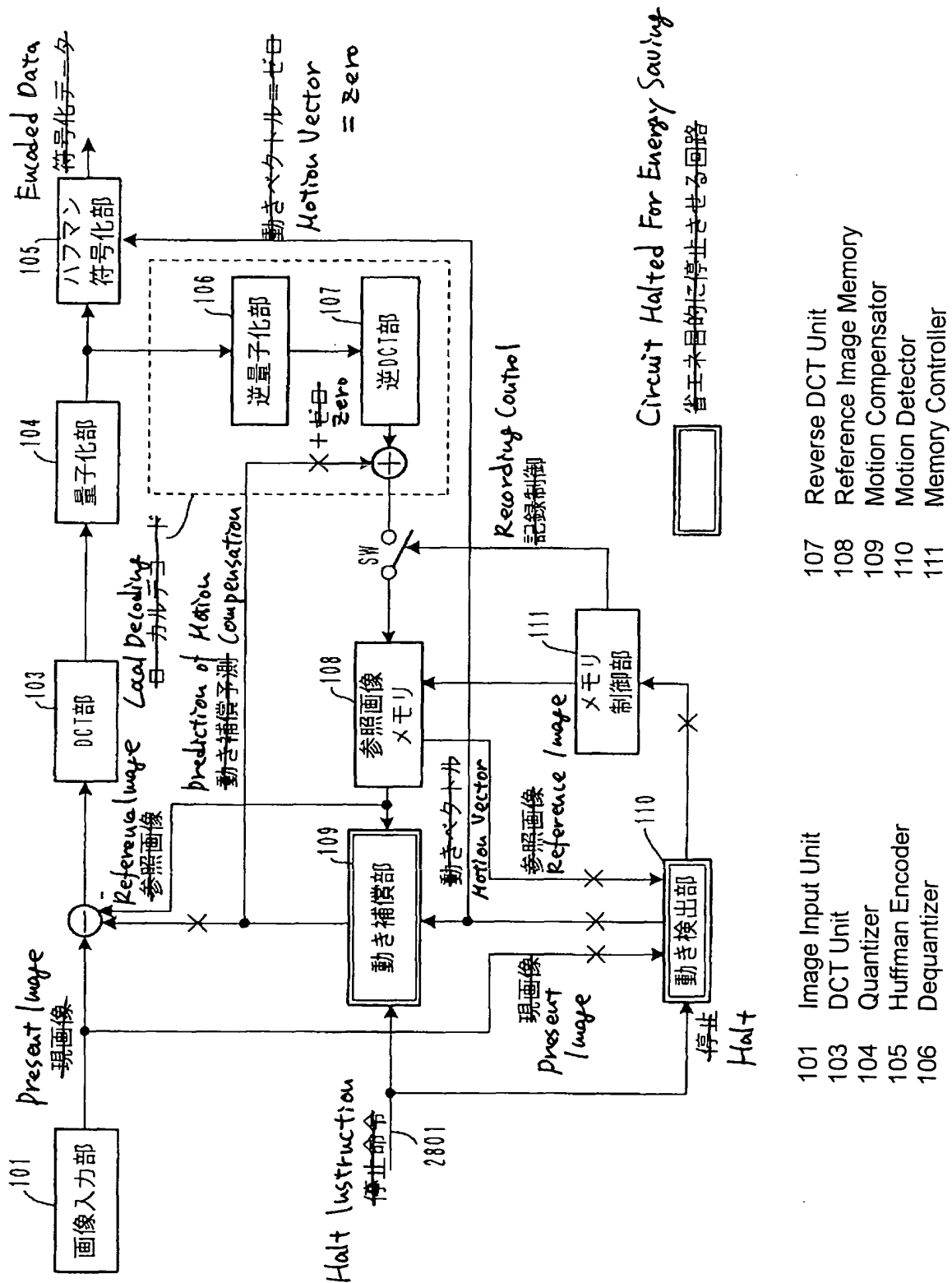
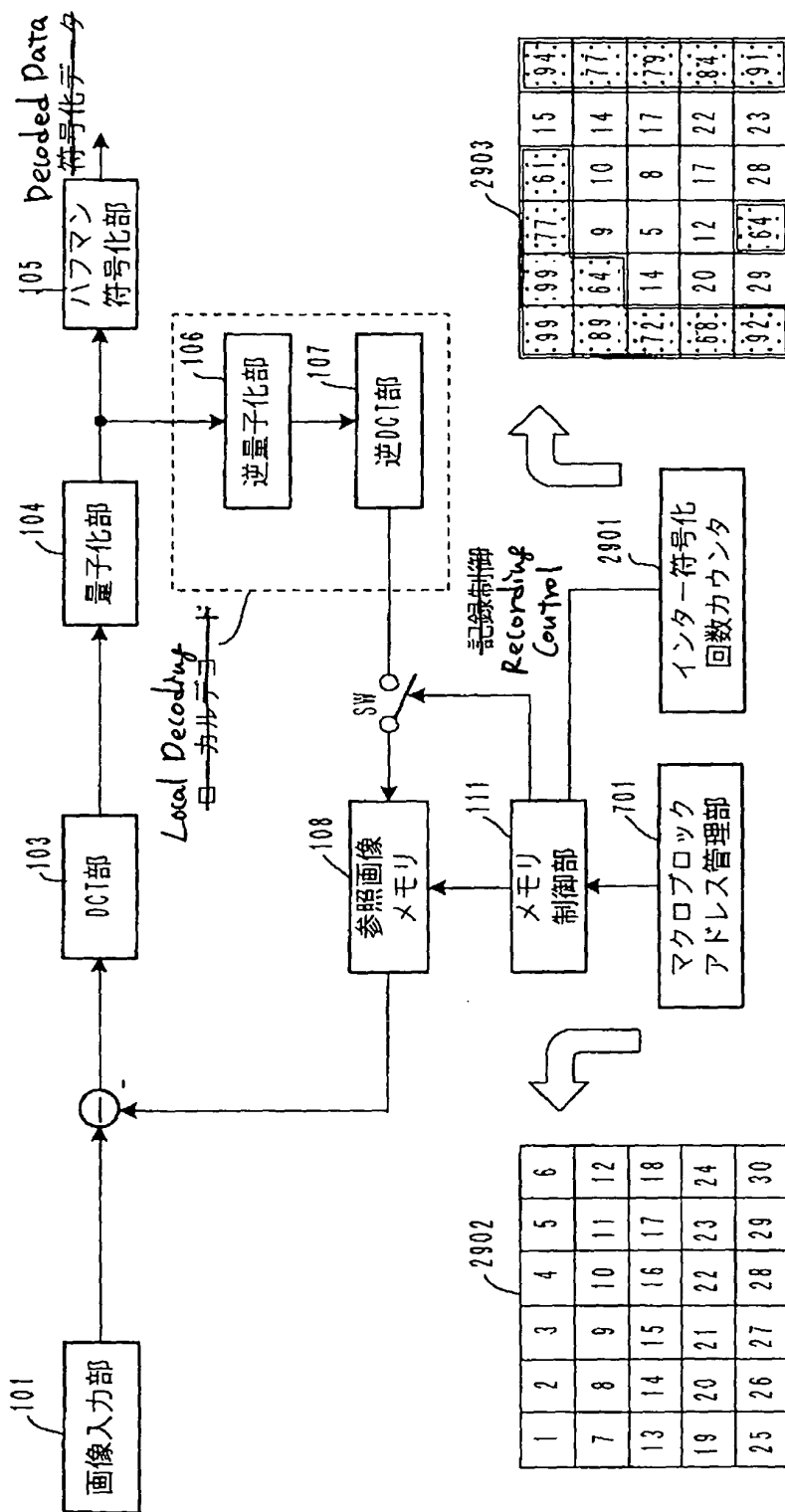


Fig. 29



インター符号化するマクロブロック位置 (例15図)  
Inter-Coded Macro Block Position  
(Example 15 pictures)

101 Image Input Unit  
103 DCT Unit  
104 Quantizer  
105 Huffman Encoder  
106 Dequantizer

107 Reverse DCT Unit  
108 Reference Image Memory  
111 Memory Controller  
701 Macro Block Address Manager  
2901 Inter Coding Frequency Counter

